

AMENDMENTS TO THE CLAIMS

Claims 1-12 have been canceled.

Claims 13-25 have been added.

13. (new) A harmful substance decomposer including a catalyst supported on a silk burned product, which is formed by burning and carbonizing a silk material at temperature of 1,000 °C or below.

14. (new) The harmful substance decomposer according to claim 13, wherein said silk burned product includes 18-35 wt% of nitrogen elements.

15. (new) The harmful substance decomposer according to claim 13, wherein said silk burned product is activation-treated so as to form many micro fine holes in a surface thereof.

16. (new) The harmful substance decomposer according to claim 14, wherein said silk burned product is activation-treated so as to form many micro fine holes in a surface thereof.

17. (new) The harmful substance decomposer according to one of claims 13, wherein said catalyst is platinum.

18. (new) The harmful substance decomposer according to one of claims 13, wherein said catalyst is phthalocyanine.

19. (new) The harmful substance decomposer according to one of claims 13, wherein said catalyst is titanium oxide.

20. (new) The harmful substance decomposer according to claim 17, wherein electrodes are provided to both ends.

21. (new) A method of producing a harmful substance decomposer, comprising the steps of:
primary-burning a silk material with temperature rising rate of 100 °C/hour or less until reaching a first temperature and maintaining the first temperature for several hours;
secondary-burning the silk material with temperature rising rate of 100 °C/hour or less until reaching a second temperature, which is higher than the first temperature and which is 1,000 °C or below, and maintaining the second temperature for several hours;
cooling the silk material, which has been secondary-burned, until reaching the room temperature; and
supporting a catalyst on the silk material, which has been secondary-burned, wherein said steps are performed in an inert gas atmosphere.

22. (new) The method according to claim 21, wherein the silk material, which has been primary-burned, is once cooled until reaching the room temperature, then the silk material is secondary-burned.

23. (new) The method according to claim 21, wherein the catalyst is platinum, phthalocyanine or titanium oxide.

24. (new) The method according to claim 21, wherein the temperature rising rate in the primary-burning step and the secondary-burning step is 50 °C/hour or less.

25. (new) The method according to claim 21, further comprising the step of exposing the silk material, which has been secondary-burned, to high-temperature steam as an activation treatment.